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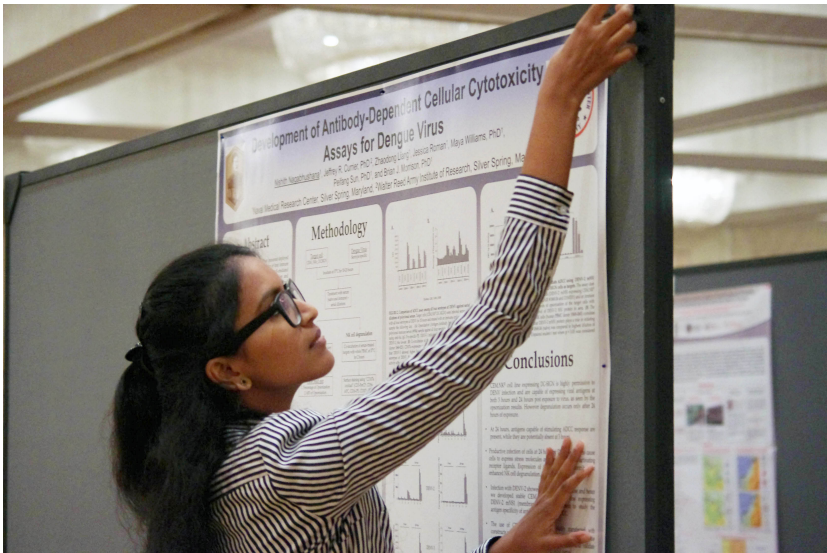

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News Releases

NMRC and WRAIR Work Together to Fight Dengue Virus

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From Naval Medical Research Center Public Affairs



Nishith Nagabhushana, Research Assistant, Department of Viral and Rickettsial Diseases, Navy Medical Research Center, prepares her presentation for the Poster sessions at the American Society of Tropical Medicine and Hygiene (ASTMH) annual meeting held Nov 13-17 in Atlanta, Georgia. (Photo from NMRC Public Affairs)

SILVER SPRING, Md. - Researchers from the Naval Medical Research Center (NMRC) and Walter Reed Army Institute of Research teamed up in a study to develop an assay to better characterize how the immune system responds to dengue virus infections.

The results of this collaboration were presented during a poster session at the American Society of Topical Medicine and Hygiene annual meeting in Atlanta, Georgia, November 13 – 17. The ASTMH meeting provides an opportunity for researchers from all areas to find collaborators and gain new perspectives.

The collaboration for this study came about through common interests. The Navy and Army deploy service members to areas where dengue fever is prevalent.

“This was a true collaboration in the sense that Army and Navy researchers actively participated in the design, the analysis, and the continued evaluation of the data as the study moved forward,” said Lt. Cmdr. Maya Williams, Head of Viral and Rickettsial Diseases, NMRC.

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According to Nishith Nagabhushana, Research Assistant, Department of Viral and Rickettsial Diseases, NMRC, there is currently no assay to evaluate the role of antibody-dependent cellular cytotoxicity (ADCC) in the human body’s immune response to dengue virus infection.

“We are trying to develop an antibody-dependent cellular cytotoxicity (ADCC) assay for dengue virus,” said Nagabhushana. “This would allow us to study the function and role of antibodies that don’t directly neutralize the virus, but still play a role in protecting against dengue.” According to Nagabhushana, the next step for this research would be to test vaccine samples using the developed assay from this study.

“The main goal of our department at NMRC is to find the right vaccine that will protect the troops against all four serotypes of dengue virus,” said Nagabhushana.

Nagabhushana found attending the annual meeting in Atlanta, Georgia, gave her some helpful insight into the study she has worked on for over a year.

“I learned the importance of the NS1 protein (dengue viral protein) and how it plays an important role in leading to vascular leakage,” said Nagabhushana. “This sort of information can help me progress in my work and help me design future experiments,” she continued.

“If you have a gap that you can’t fill, you can find complimentary efforts here to help you advance the research,” said Williams. “If you really want to know the most up to date information, not only through the presentations but also through conversations with other attendees this meeting is where you will find that information.”

“I learned a lot about other tropical diseases that I didn’t know existed, it was a chance to learn about new diseases as well as a chance to learn a lot more about virology and about the different studies being done all over the world,” said Nagabhushana.

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